Appln. No.: 10/523,210
Amendment dated October 31, 2007
Response to Office Action of July 31, 2007

REMARKS/ARGUMENTS

The Office Action of July 31, 2007, has been carefully reviewed and these remarks are responsive thereto.

Claims 1, 3-8, and 10-11 have been amended. Claims 2 and 9 have been cancelled, and the features recited therein incorporated into claims 1 and 7, respectively. Support for the amendments to the claims can be found in the specification at, for example, page 2, lines 9-34. No new matter has been added by the amendments to the claims, and entry thereof is respectfully requested.

Thus, claims 1, 3-8, and 10-11 are pending following entry of this amendment.

Objections to the Specification

In the Office Action, the disclosure was objected to because the term "DSA" was used at page 9, line 19, to refer to both an isochronous and an asynchronous data stream.

The specification has been amended to use the term "DPA" to refer to the asynchronous data stream. Support for this amendment to the specification is found, for example, at page 10, lines 6 and 7, where the term "DPA" is used to refer to asynchronous data. No new matter has been added, and entry of the amendment is respectfully requested.

Withdrawal of the objection to the specification is respectfully requested.

Objections to the Claims

In the Office Action, the claims were objected to because of certain noted informalities. It is respectfully submitted that the claims as amended herein correct those informalities, and withdrawal of the objections to the claims is respectfully requested.

Claim Rejections – 35 U.S.C. § 112

In the Office Action, claims 1-6 were rejected under 35 U.S.C. § 112, second paragraph, because the term "the communication protocol" in claim 1, line 3 lacks antecedent basis. Claims 2-6 were rejected for depending from a rejected claim, i.e., claim 1.

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Claim 1 as amended no longer recites "the communication protocol," thus mooting the objection. Withdrawal of the rejection of claim 1 and dependent claim 2-6 on this basis is respectfully requested.

Claim 5 was rejected under 35 U.S.C. § 112, second paragraph, because claim 5 recited the term "its," which the Examiner asserted was indefinite.

Claim 5 as amended removes the recitation of the term "its" and otherwise clarifies the subject matter recited in the claim. Withdrawal of the rejection of claim 5 on this basis is respectfully requested.

Claim 6 was rejected under 35 U.S.C. § 112, second paragraph, because claim 6 recited that "certain type of control communication control information which is to be issued by [. . .] means of asynchronous data communication," whereas claim 1, from which claim 6 depends, previously defined the certain type of control communication as being isochronous. Claim 6 also was rejected under 35 U.S.C. § 112, second paragraph, because claim 6 recited the term "it," which the Examiner asserted was indefinite.

Claim 6 as amended recites "said first control communication to said first at least one second device includes a second control command, said first at least one second device communicating said second control command to a second at least one of said plurality of second devices by means of isochronous data communication from said first at least one second device to said second at least one second device." As recited in claim 1, the "first control communication" is sent by asynchronous data communication. Amended claim 6 thus clarifies that it is a separate "second control command" included within the asynchronous data stream, not the first control communication itself, that is sent by one of the second devices to another of the second devices by means of isochronous data communication. Amended claim 6 also removes the recitation of the term "it," thus mooting the rejection of claim 6 on that basis. It is respectfully submitted that the amendments to claim 6 overcome the Examiner's rejection under 35 U.S.C. § 112, second paragraph, and withdrawal of the rejection of claim 6 on this basis is respectfully requested.

Claim 8 was rejected under 35 U.S.C. § 112, second paragraph, because claim 8 recited the term "and/or," which the Examiner asserted was indefinite.

Claim 8 as amended removes the recitation of the term "and/or" and otherwise clarifies the subject matter recited in the claim. Withdrawal of the rejection of claim 8 on this basis is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

In the Office Action, claims 1-2, 4, 6-9, and 11 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0026540 to Smyers (Smyers). This rejection is respectfully traversed.

Claims 1 and 7 are independent.

Claim 1 is amended to incorporate the features of claim 2 therein, and claim 2 has been cancelled.

Among other steps, claim 1 as amended recites:

> issuing real-time data communication from said first device to said first at least one of said plurality of second devices by means of an isochronous data communication;

> issuing a second control communication from said first device to said first at least one of said plurality of second devices, said second control communication being included in said isochronous data communication and comprising a first control command to said first at least one of said plurality of second devices for controlling a functionality having an effect directly recognizable by a user if said first control command is not timely executed in said first at least one second device.

It is respectfully submitted that Smyers does not describe at least these method steps recited in amended claim 1.

Smyers describes a bus structured network using asynchronous and isochronous data transmissions. As described in Smyers, "[t]he stream of data is transmitted on a data isochronous channel. The control communications include a real time component transmitted on a control isochronous channel. The control communications include a non-real time component transmitted by asynchronous commands." Smyers at page 3, paragraph [0014]. Smyers further describes that "[t]he real-time [control] communications component is sent on an isochronous channel which is **different from** the isochronous channel on which the stream of data is being

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sent." Smyers at page 5, paragraph [0034]. This is exactly the opposite of the communications method recited in claim 1 as amended, in which control communication is "included in _said_ isochronous data communication," i.e., the same isochronous data communication as is the real-time data communication.

In addition, the Examiner reads the description in paragraph [0034] of Smyers that "sending a control signal that if not timely received will cause data to be lost" as describing the features of "controlling a functionality having an effect of being directly recognizable" recited in claim 2. Applicant respectfully submits, however, that Smyers does not describe the features recited in claim 1 as amended herein, wherein isochronous data communication is used to communicate "a control command . . . for controlling a functionality having an effect directly recognizable by a user if said control command is not timely executed . . . ." The control commands described in Smyers are issued between one or more Audio-Visual Hard Disk Devices (AVHDD), i.e., between automatic data storage devices. See Smyers at page 5, paragraph [0034]. It is respectfully submitted that it is not possible for a user to recognize an effect of a non-timely execution of a control command as described in Smyers, which occurs in an automatic data storage device, and that Smyers thus does not describe the feature of amended claim 1 that the effect of non-timely execution be directly recognizable by a user.

Withdrawal of the rejection of claim 1 over Smyers is respectfully requested.

Claim 2 has been cancelled, thus mooting the rejection of claim 2 with respect to that claim.

Claims 4 and 6 depend from claim 1. Applicant respectfully submits that claims 4 and 6 thus also patentably distinguish over Smyers, both for the reasons discussed above and in view of the additional inventive steps recited therein. Withdrawal of the rejection of claims 4 and 6 over Smyers is respectfully requested.

Claim 7 has been amended to incorporate the steps and features relating to communication between first and second devices recited in claim 1 as amended. Applicant respectfully submits that claim 7 thus also distinguishes over Smyers for the same reasons as discussed above with respect to claim 1, and withdrawal of the rejection of claim 7 over Smyers is respectfully requested.

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Claim 9 has been cancelled, thus mooting the rejection as to that claim.

Claims 8 and 11 depend from claim 7. Applicant respectfully submits that claims 8 and 11 also patentably distinguish over Smyers, both for the reasons as discussed above with respect to claim 1, and further in view of the additional inventive features recited therein. Withdrawal of the rejection of claims 8 and 11 and allowance is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

In the Office Action, claims 3 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Smyers in view of U.S. Patent No. 6,404,533 to Fergusson (Fergusson). Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Smyers in view of U.S. Patent No. 5,434,860 to Riddle (Riddle). These rejections are respectfully traversed.

Claim 3 depends from claim 1 and claim 10 depends from claim 7. As discussed above, claims 1 and 7 are patentable over Smyers. It is respectfully submitted that the combination of Smyers and Fergusson does not describe all of the features recited in claims 3 and 10 as amended herein.

Fergusson describes a method and system for data transmission via a fiber optic link, wherein both asynchronous and isochronous data transfers are used, including transfer of video control data. Fergusson at col. 5, lines 1-23.

Fergusson, however, does not remedy the deficiencies of Smyers noted above with respect to claims 1 and 7, nor does the Examiner cite to Fergusson for this purpose. It is thus respectfully submitted that claims 3 and 10 are patentable over the combination of Smyers and Fergusson, because of their dependence on respective base claims 1 and 7 and further because of the additional inventive steps and features recited therein.

Withdrawal of the rejection of claims 3 and 10 and allowance is respectfully requested.

Claim 5 depends from claim 1. As noted above, Smyers does not describe all of the features recited in amended claim 1. It is respectfully submitted that the combination of Smyers and Riddle does not describe all of the features of claim 5 as amended herein.

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Riddle describes a method and system for transmission and flow control of real-time data streams over computer networks, which includes an automatic means of limiting the data flow when reduced network performance is detected.

Riddle does not, however, remedy the deficiencies of Smyers noted above with respect to claim 1, nor does the Examiner cite to Riddle for this purpose. It is thus respectfully submitted that the combination of Smyers and Riddle does not describe all of the features recited in claim 5 because of its dependence on claim 1 and further because of the additional inventive steps recited therein.

Withdrawal of the rejection of claim 5 and allowance is respectfully requested.

CONCLUSION

All rejections having been addressed, Applicant respectfully submits that the present application is in condition for allowance with claims 1, 3-8, and 10-11, and respectfully solicits prompt notification of the same. However, if for any reason the Examiner believes the application is not in condition for allowance or there are any questions, the Examiner is requested to contact the undersigned at 609-734-6440.

Respectfully submitted,
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Date

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